

## Product datasheet for **MG208039**

### **Aldh1a1 (NM\_013467) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Aldh1a1 (NM_013467) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aldh1a1
Synonyms:	Ahd-2; Ahd2; Aldh1; Aldh1a2; E1; Raldh1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208039 representing NM\_013467  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCTTCGCCTGCACAACCTGCAGTCCCTGCCCACTGGCCGACTTGAAGATTCAACATACCAAGATCT  
 TCATAAACAATGAATGGACAATTCACTGAGCGCAAGAAATTTCCAGTTCTTAACCTGCAACTGAGGA  
 GGTCACTGCCACGTGGAAGAAGGGGACAAGGCTGATGTTGACAAAGCTGTGAAGCTGCAAGACAGGCT  
 TTCCAGATTGGCTCTCCATGGCGCACCATGGATGCTTCAGAGAGGGGCCCTGTGAACAAGCTGGCTG  
 ACTTAATGGAGAGAGATCGTCTGCTGCTAGCTACAATGGAGGCACTCAATGGTGGAAAGCTTTGCCAA  
 TGCATACTGTTCGGATTTAGGAGGCTGCATAAAAGCATTAAAGTACTGTGCAGGCTGGGCTGACAAGATT  
 CATGGTCAAACAATACCAAGTATGGAGACATTTCACTTACAAGACGTGAACCTATTGGAGTGTGTG  
 GCCAAATCATCCCCTGGAATTTCCAATGCTCATGTTCAATTTGGAAGATAGGCCCTGCCCTTAGCTGTG  
 GAATACCGTGGTGTCAAGCCAGCAGAGCAAACCTCTCACGGCTCTTACCTGGCATCTTTAATAAAA  
 GAGGCAGGGTTTCTCCTGGCGTGGTAAACATTGTCCCTGGTTATGGGCCAACTGCAGGGGACGCCATCT  
 CCTCTCATGGATGTCGACAAGGTGGCCTTCACTGGATCAACACAGGTTGGCAAGTTAATCAAGGAAGC  
 TGCAGGGAAAAGCAATCTGAAGAGAGTACCCTGGAGCTTGGGGAAAGAGCCCTTGCAATGTGTTTGCA  
 GATGCCGACTTGGACATTGCTGTTGAGTTTGCACACCATGGAGTGTTTTATCATCAAGGCCAATGCTGTG  
 TCGCAGCATCCCGGATTTTTGTTGAGGAGTCAGTTTATGATGAGTTTGTGAAAAGGAGTGTGAGCGAGC  
 TAAGAAATATGTTCTTGGAAATCCTCTGACCCAGGAATAATCAAGGCCCTCAGATTGACAAGGAACAA  
 CATGATAAAATACTCGATCTCATTGAGAGTGGGAAGAAAGAGGCCAAACTGGAGTGTGGTGGAGGAC  
 GCTGGGGGAACAAAGGCTCTTTGTGCAGCCACAGTGTCTCCAACGTGACTGATGATGATGATGATGATG  
 CAAGAGGAGATATTTGGACCAGTGAACAATCATGAAGTTTAAAGTCTGTAGATGATGATGATGATGATG  
 GCAACAATACTACCTATGGTTTAGCAGCAGGACTCTTCACTAAAGACCTGGATAAGGCCATCACTGTG  
 CATCTGCTCTGCAGGCTGGGGTGGTGTGGGTTAACTGCTATATGATGTTGTGAGCCAGTCCCCCTCGG  
 TGGATTCAAGATGCTGGAAATGGAAGAGAAGTGGGTGAACATGGTCTTTATGAATACACTGAGCTCAAG  
 ACAGTCGCAATGAAGATATCTCAGAAGAACTCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208039 representing NM\_013467  
 Red=Cloning site Green=Tags(s)

MSSPAQPAVPAPLADLKIQHTKIFINNEWHNSVSGKKFPVLPATEEVICHVEEGDKADVDKAVKAARQA  
 FQIGSPWRTMDASERGRLLNKLADLMERDRLLLATMEALNGGKVFANAYLSDLGGCIKALKYCAGWADKI  
 HGQTIPSDGDIIFYTRREPIGVCGQIIPWNFPMLMFIWKIGPALSCGNTVVVKPAEQTPLTALHLASLIK  
 EAGFPPGVVNIIVPGYGPTAGAAISSHMDVDKVAFTGSTQVQGLIKEAAGKSNLKRVTLELGGKSPCIVFA  
 DADLDIAVEFAHHGVFYHQGCCVAASRIFVEESVYDEFVKRSVERAKKYVLGNPLTPGINQGPQIDKEQ  
 HDKILDLESKKEGAKLECGGRWGNKGFFVQPTVFSNVTDEMRIAKEEIFGPVQQIMKFKSVDDVIKR  
 ANNTTYGLAAGLFTKDLDKAITVSSALQAGVVVWNCYMLSAQCPFGGFKMSGNGRELGEHGLYEYTELK  
 TVAMKISQKNS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_013467

**ORF Size:** 1503 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_013467.2](#)

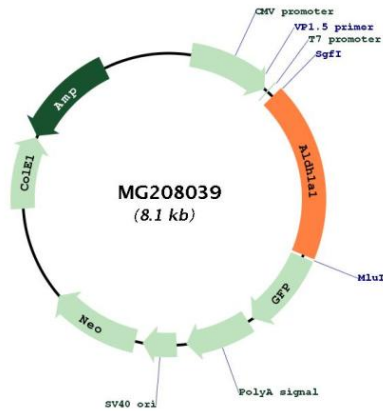
**RefSeq Size:** 2032 bp

**RefSeq ORF:** 1506 bp

**Locus ID:** 11668

UniProt ID: [P24549](#)  
 Cytogenetics: 19 13.91 cM  
 Gene Summary: Can convert/oxidize retinaldehyde to retinoic acid. Binds free retinal and cellular retinol-binding protein-bound retinal (By similarity). May have a broader specificity and oxidize other aldehydes in vivo (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG208039